SONY

4-466-324-**11**(2)

(2)

LCD TV

Operating Instructions

BRAVIA

Customer support
http://www.sony-asia.com/support

http://www.sony.net/

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KLV-46R472A / 46R452A / 40R472A / 40R457A / 40R452A / 32R422A / 32R407A / 32R402A / 24R422A / 24R402A

Introduction

Thank you for choosing this Sony product. Before operating the TV, please read this manual thoroughly and retain it for future reference.

- Instructions about "Installing Wall-Mount Bracket" are included within this TV's instructions manual.
- The illustrations used in this manual may differ depending on your TV model.
- The illustrations of the remote control used in this manual are of the RM-GA024 unless otherwise stated.
- Before operating the TV, please read Safety Information. Retain this manual for future reference.

Location of the identification label

Labels for TV Model No. and Power Supply rating (in accordance with applicable safety regulation) are located on the rear of the TV. Labels for AC adapter Model No. and Serial No. are located at the bottom of AC adapter.

Notice for customers in South Africa

The Euro/South Africa converter plug should be fitted as follows.

1 Insert the power supply or CE7 plug in to the converter plug.
2 Use an appropriate screwdriver to attach the screw tightly without damaging the screw head.
3 TEST: Grip the converter plug, and pull the VDE cord set/transformer to ensure it is fully secure, if not then increase the torque setting and further tighten.
Re-test:
The converter plug is now ready for use.

Disposal of the TV set

Disposal of Old Electrical & Electronic Equipment (Applicable in the European Union and other European countries with separate collection systems)

This symbol is on the remote control and AC adapter.

Disposal of the TV set

Disposal of Old Electrical & Electronic Equipment (Applicable in Republic of India)

India only

This symbol indicates that this product shall not be treated as household waste and may not be dropped in garbage bins. Product owners are advised to deposit their product at the nearest collection point for the recycling of electrical and electronic equipment. Your co-operation shall facilitate proper disposal & help prevent potential negative consequences/hazards to the environment and human health, which could otherwise be caused by inappropriate waste disposal including improper handling, accidental breakage, damage and/or improper recycling of e-waste.The recycling of materials will help to conserve natural resources. For more detailed information about recycling of this product, please contact your local civic office, your household waste disposal service provider or the store where you made the purchase. You may contact our company's toll free number in India for assistance.

Trademark information

- HDMI, the HDMI Logo, and High-Definition Multimedia Interface are trademarks or registered trademarks of HDMI Licensing LLC in the United States and other countries.
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HIGH-DEFINITION MULTIMEDIA INTERFACE

Mobile High-Definition Link

2.0+Digital Out (except KLV-40R457A, KLV-32R407A)

2.0 Channel (KLV-40R457A, KLV-32R407A only)

Checking the accessories

Table-Top Stand (1)*
Fixing screws for Table-Top Stand (M5 × 16) (2)
Remote control (1)
AC power cord (mains lead) (1)
AC adapter (1)
Cable holders (3)
Size AAA batteries (R03 type) (2)
Operating Instructions (this manual) and other documents
Wall-Mount Bracket accessories
(KLV-46/40R472A, KLV-32/24R422A only)

* Refer to the supplied Table-Top Stand leaflet to assemble the Table-Top Stand.

1: Attaching the Table-Top Stand

- If using an electric screwdriver, set the tightening torque at approximately 1.5 N·m (15 kgf·cm).

■ **KLV-46/40R452A, KLV-40R457A, KLV-32R407A, KLV-32/24R402A:**

■ **KLV-46/40R472A, KLV-32/24R422A:**

Detaching the Table-Top Stand from the TV

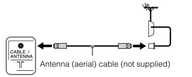
- Do not remove the Table-Top Stand for any reason other than to wall-mount the TV.

■ **KLV-46/40R452A, KLV-40R457A, KLV-32R407A, KLV-32/24R402A:**

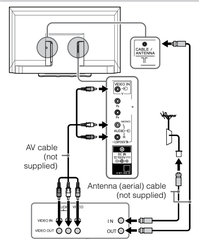
■ **KLV-46/40R472A, KLV-32/24R422A:**

2: Connections

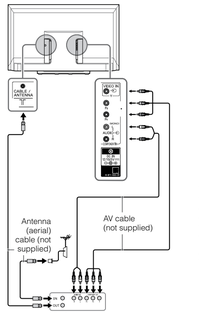
Connecting an antenna (aerial)/ cable



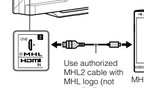
Connecting an antenna (aerial)/ cable and VCR



Connecting audio/video devices



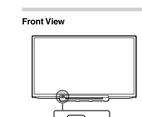
■ **Connecting MHL device**



The MHL (Mobile High-Definition Link) enables the TV to communicate with a connected MHL-compatible device. The TV can charge the connected MHL-compatible device while playing photo/music/video from it. You can use the TV remote control to control the connected MHL-compatible device.

- If "Auto Input Change (MHL)" is set to "On", the TV automatically switches to "HDMI / MHL" or "HDMI 2 / MHL" (depending on your TV model) from other input when MHL-compatible device is connected to HDMI IN / MHL or HDMI IN 2 / MHL jack. The availability of "Auto Input Change (MHL)" depends on whether the MHL-compatible device can support this feature.
- You can continue normal usage of the connected MHL-compatible device (such as receiving calls) depending on its capability.
- Some remote control functions may not be available depending on features of the connected MHL-compatible device. Please refer to the device manual for details.
- This product is officially MHL-certified for operation with other MHL-certified devices. If you encounter any problems when using the MHL function, please consult the device manufacturer for support.

3: Preventing the TV from toppling over



* KLV-46/40R472A, KLV-46/40R452A, KLV-40R457A, KLV-32R422A, KLV-32R407A, KLV-32R402A:
Use M6 anchor bolts
* KLV-24R422A, KLV-24R402A:
Use M4 anchor bolts

4: Performing the initial setup

* 12V may vary depending on country

- When the TV is in standby mode (the ⏻ (standby) indicator on the TV front panel is red), press I/⏻ on the remote to turn on the TV.
- Make sure that the TV is completely turned off before unplugging the AC power cord (mains lead) or DC cable. Unplugging the AC power cord (mains lead) or DC cable while the TV is turned on may cause the TV to malfunction.

Follow the instructions on the screen.

- You can also tune channels manually.
- Language options vary depending on model.
- Select "Home" from "Location" for the best TV settings to use the TV in the home.

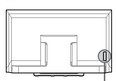
Overview of the TV controls and indicators

Front View

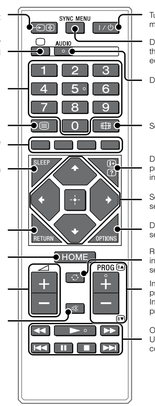
+1/-5
Remote sensor
Power/Standby indicator
• Lights up in red when in standby.
• Lights up in green when the TV is turned on.
• Flashes while the remote is being operated.

- Do not put anything over the sensor, doing so may affect its function.

Back View


Power
Turns the TV on or switch to standby mode.
Volume
• Adjusts volume.
• Moves through options up and down when selecting channels or input source.
CH/INPUT
• Press button until ↑/↓ Programme +/- appears and selects channels with Volume button.
• Press button until ↑/↓ Input select" appears and selects input source with Volume button.

Overview of the remote


Selects input source. In Text mode: Holds the current page.
Exit Text mode, or switches to a TV display when displaying external input.
In TV mode: Selects channels. In Text mode: Selects pages.
Displays text information.
Available when operation guide appears on the screen.
Sets the desired time frame to turn off TV automatically.
Returns to the previous screen. In USB mode: Stops the playback.
Displays or cancels the menu.
Adjusts volume.
Mute or restore sound.
Turns the TV on or switch to standby mode.
Displays the BRAVIA Sync Menu and then select connected HDMI/MHL equipment from "Device Selection".
Dual Sound.
Selects the desired wide mode.
Displays information about the programme/input or reveals hidden information in Text mode.
Selects, adjusts or confirmed selected items.
Displays a list of shortcuts to some setting menus.
Returns to the previous channel or input watched (for more than 15 seconds).
In TV mode: Selects the next or previous channel. In Text mode: Selects the next or previous page.
Operates the BRAVIA Sync and USB compatible equipment that is connected to the TV.

■ **To change the Wide Mode**

For TV, Video, Component or HDMI (except PC input)/ MHL

HDMI PC Input (PC timing)

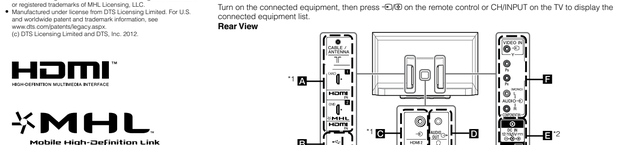
* Parts of the top and bottom of the picture may be cut off.

- Some options may not be available depending on the signal source.

Viewing pictures from the connected equipment

Turn on the connected equipment, then press ⏎/⊕ on the remote control or CH/INPUT on the TV to display the connected equipment list.

Rear View



*1 Terminals and labels may vary depending on TV model.
*2 12V may vary depending on country.

A HDMI IN / MHL, HDMI IN 2 / MHL and HDMI IN 1(ARC) (Home Theatre systems, Camcorder, Blu-ray Disc player, DVD player, PC with HDMI output and Mobile device).
Connect to the HDMI IN jack if the equipment has an HDMI jack.
If the equipment is compatible with MHL, connect the MHL jack of the equipment to the HDMI IN / MHL or HDMI IN 2 / MHL jack through a MHL - HDMI cable (not supplied).
If connecting a digital audio system that is compatible with Audio Return Channel (ARC) technology, use HDMI IN 1 (ARC). If not, an additional connection with AUDIO OUT (Refer **D**) is necessary.

- The HDMI jacks can support PC timing in HDMI PC mode. Refer PC input signal reference chart under "PC settings".
- Be sure to use only an authorized HDMI cable bearing the HDMI logo, or an authorized MHL cable bearing the MHL logo.
- HDMI IN 1 (ARC) is available depending on your TV model.

B ⇨ **(Digital still camera, Camcorder, USB storage media)**
Access photo/music/video files stored on a USB device.

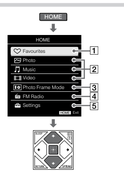
C ⇨ **HDMI AUDIO IN or HDMI 2 AUDIO IN (PC and other audio devices)**
Connect to the ⇨ HDMI AUDIO IN or HDMI 2 AUDIO IN. It is recommended to use an audio input (stereo minijack).

D AUDIO OUT ⇦/⇧ **(Stereo systems, Headphone)**
Connect with an audio cable or headphones. You can listen to TV sound through your stereo system or headphones. You can select "Variable" or "Fixed" in the "Audio Out" menu.

E ⊖⊕ **DC IN 12/19.5 V** ⎓
Connect AC adapter to the ⊖⊕ DC IN 12/19.5 V ⎓ jack.

F VIDEO IN ⏎**/COMPONENT IN/AUDIO** ⇨ **(DVD player, VCR, Video game equipment, S VHS/Hi8/DVC camcorder, DVD player with component output)**
Connect to the VIDEO IN ⏎ jack and the AUDIO ⇨ jacks. If you connect mono equipment, connect to the L (MONO) jack.
For better picture quality, component connection is recommended if your DVD player has a component video output. Connect to the COMPONENT IN jacks.

Using Menu Functions

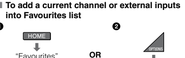


- To exit Home menu: HOME

1 ♡ Favourites

Store up to 18 channels or external inputs.

■ **To add a current channel or external inputs into Favourites list**



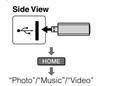
■ **To watch a channel or external input**

- To exit Favourites List: RETURN
- When you run the "Auto Tuning", only the programme channels in your Favourites list will be cleared.

2 Photo/ Music/ Video

Playback photo/music/video files via USB devices.

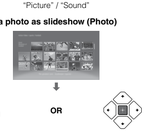
Side View



- If more than one USB detected: next ⇨ "Device Selection"
- If you connect the USB device when "USB Auto Start" is set to "On", the thumbnail view of photo/music/video appears automatically.

■ **To adjust the picture and sound setting (Video)**

■ **To play a photo as slideshow (Photo)**



- To stop slideshow: OPTIONS ⇨ "Stop Slideshow"

- While the TV is accessing the data on the USB device, do not turn off the TV or connected USB device, disconnect the USB cable, or remove the USB device.
- Sony will not be held liable for any damage to, or loss of, data on the recording media due to a malfunction of any connected devices or the TV.
- The file name and folder name may not display correctly in some cases.
- When you connect a Sony digital still camera, set the camera's USB connection mode to Auto or Mass Storage. For more information about USB connection mode, refer to the instructions supplied with your digital camera.
- Check the website below for updated information about compatible USB devices.
http://www.sony-asia.com/bravia/flash.html
- Use a USB storage device that is compliant with USB mass storage device class standards.

USB Video format

Extension	Container	Video Codec	Audio Codec
.avi	AVI	MPEG1, MPEG2, XviD, MPEG4, H.264, MJPEG	PCM, AC3, MPEG1 Layer1/2, MPEG2 AAC, MPEG4 AAC, MPEG4 HE-AAC, WMA V8, MP3
.wmv, .asf	ASF	WMV V9, Xvid, MPEG4, VC-1	MP3, WMA V8
.mp4, .mov, .3gp	MP4	MPEG4, H.264, H.263, MJPEG	MPEG1 Layer1/2, MP3, MPEG2 AAC, MPEG4 AAC, MPEG HE-AAC
.mkv	MKV	WMV V9, MPEG4, H.264, VC-1	PCM, MP3, MPEG1 Layer1/2, MPEG2 AAC, MPEG4 AAC, MPEG4 HE-AAC, AC3, WMA V8
			DTS, DTS 2.0
		VP8	VORBIS
.mpg, .mpeg, .vob, .vro	MPEG1	MPEG1	MPEG1 Layer1/2, MP3, AC3
	MPEG2PS	MPEG1, MPEG2	DTS, DTS 2.0
.ts, .m2ts	MPEG2TS	MPEG2, H.264, VC-1	MPEG1Layer 1/2, MP3, MPEG2 AAC
			MPEG4 HE-AAC, AC3, MPEG4 AAC
			DTS, DTS 2.0

USB Music format

Extension	Audio Codec
.mp3	MPEG1 Audio Layer 3
.wma	WMA V8
.wav	LPCM

USB Photo format

Extension	Image Codec
.jpg, .jpe, .jpeg	JPEG

DCF2.0 or EXIF2.21 supported.

- Playback of the above file formats is not guaranteed.
- The USB device supports FAT16 , FAT32 and NTFS.

3 Photo Frame Mode (KLV-46/40R472A, KLV-32/24R422A only)

Display Photo, Music and Clock calendar at the same time.

■ **To enter Photo Frame Mode**

- To exit Photo Frame mode: HOME / RETURN

4 FM Radio

- For first time using FM Radio function:

- To access FM Radio mode:

■ **To listen to preset stations:**

- To exit "Channel Set-up" menu: HOME
- To select desired preset FM Radio stations:

■ **To listen to non-preset stations:**

- If "Please set-up FM Radio." appears, perform **To listen to preset stations**.

■ **To show photo or picture while listening to FM Radio**

- To exit "Photo Frame Mode"/"Slideshow"/"Picture Frame": RETURN

■ **To reduce power consumption in FM Radio**

- To exit from "Picture Off": Any key except I/⏻, ⏎

- To exit FM Radio mode: RETURN
- If the station has a noisy sound, press ◀/▶ to improve the sound quality.
- If the FM stereo programme has static noise, press AUDIO until "Mono" appears to reduce noise.

5 Settings

You are able to change the settings of your TV from "Settings" menu

■ **To select setting options**

- To exit the setting mode: HOME
- The options you can adjust vary depending on the situation. Unavailable options are greyed out or not displayed.

Picture

Picture Mode	Sets a picture mode.
Reset	Resets all the "Picture" settings to factory settings, except "Picture Mode" and "Intelligent Picture Plus Set-up".
Backlight	Adjusts the brightness of the backlight.
Picture	Increases or decreases picture contrast.
Brightness	Brightens or darkens the picture.
Colour	Increases or decreases colour intensity.
Hue	Increases or decreases the green tones and red tones.
Sharpness	Sharpens or softens the picture.
Colour Temperature	Adjusts the whiteness of the picture.
Noise Reduction	Reduces the picture noise (snowy picture) in a weak broadcast signal.
MPEG Noise Reduction	Reduces the picture noise in MPEG-compressed video.

- If the image contains irregular signals or too much noise, "Cinema Drive" is automatically turned off even if "Auto" is selected.

Advanced Settings	Set "Picture" settings in more detail.
Intelligent Picture Plus Set-up	Enhances picture quality according to preferred settings, channel or video input.

Sound

Sound Mode	Sets a sound mode.
Reset	Resets all the "Sound" settings to factory settings, except "Sound Mode", "Dual Sound", "Speakers", "Audio Out" and "HDMI/DVI Audio Source".
7 Band Equaliser	Adjusts sound frequency settings.
Sound Booster	Produces a fuller sound for more impact.
Clear Voice	Makes voice sound clearer.
Simulated Stereo	Adds a surround-like effect to mono programmes.
Intelligent Volume	Minimizes the difference in volume level between all programmes and adverts.
Balance	Emphasises left or right speaker balance.
Volume Offset	Adjusts the volume level of the current input relative to other inputs.
Dual Sound	Sets the sound from speaker for a stereo or bilingual broadcast.

- If the stereo sound is noisy when receiving a NICAM programme, select "Mono". The sound becomes monaural, but the noise is reduced.
- If you select other equipment connected to the TV, set "Dual Sound" to "Stereo", "Main" or "Sub". However, when the external equipment connected to the HDMI jack (except HDMI 1) is selected, this is fixed to "Stereo".
- If you access to FM Radio mode, set "Dual Sound" to "Stereo" or "Mono".

Speakers	Selects sound output from TV speakers or external audio equipment.
Audio Out	Selects whether to control external audio system through TV remote control.

- When the input source is set to "Headphone" in the "Headphone/Audio Out" under the "AV Set-up" menu, "Audio out" is not available in the list.

Cinema Drive	Provides improved picture movement when playing BD (Blu-ray Disc), DVD or VCR images taken on film, reducing picture blur and graininess.

- Even if "Auto Wide" is set to "On" or "Off", you can always modify the format of the screen by pressing ⏎ repeatedly.

4:3 default	Selects the default screen mode for use with 4:3 broadcasts.
Auto Display Area	Selects "On" to automatically adjusts the display area based upon the content or "Off" to choose from the "Display Area" options.
Display Area	Adjusts the picture display area.
Horizontal Shift	Adjusts the horizontal position of the picture when "Wide Mode" is set to "Wide Zoom" or "Zoom".
Vertical Shift	Adjusts the vertical position of the picture when "Wide Mode" is set to "Wide Zoom" or "Zoom".
PC Settings	Selects screen mode or adjusts the display position, phase and pitch of the picture when the TV receives an input signal from the connected PC.

PC input signal reference chart for HDMI IN 1, 2

Signals	Horizontal (Pixel)	Vertical (Line)	Horizontal (kHz)	Vertical (Hz)	Standard
VGA	640	480	31.5	60	VGA
SVGA	800	600	37.9	60	VESA Guidelines
XGA	1024	768	48.4	60	VESA Guidelines
WXGA	1280	768	47.4	60	VESA
WXGA	1280	768	47.8	60	VESA
WXGA	1360	768	47.7	60	VESA
SXGA*	1280	1024	64	60	VESA
HDTV*	1920	1080	67.5	60	EIA

* KLV-46/40R472A, KLV-46/40R452A, KLV-40R457A only

- This TV's PC input does not support Sync on Green/ Composite Sync and interlaced signal.
- This TV's PC input supports signals in the above chart with a 60 Hz vertical frequency.

Channel Set-up

1 Digit Direct	When "1 Digit Direct" is set to "On", select a channel using one preset number button (0 - 9) on the remote.

Screen

Wide Mode	Refer (To change the Wide Mode).
Auto Wide	Automatically changes the wide mode according to the input signal from an external equipment. To keep your setting, select "Off".

- When "1 Digit Direct" is set to "On", you cannot select channel numbers 10 and above entering next digit using the remote.

Auto Tuning Tunes in all the available channels.

Programme Sorting Changes the order in which the channels are stored on the TV.

Programme Labels Assigns a channel name of your choice up to seven letters or numbers.

Manual Programme Preset Sets programme channels manually.

- In "Audio Filter", you cannot receive stereo or dual sound when "High" is selected.

FM Radio Set-up Preset up to 30 FM radio stations that can be received in your area.

Parental Lock

PIN Code Sets up TV to block channel or external input. Use 0-9 on the remote to enter a four-digit PIN code.

Change PIN Code Selects to change your PIN code.

Programme Block Blocks an individual channel from being watched. To view a blocked channel, select "Unblocked".

External Input Lock Locks an external input from being watched. To view a blocked external input, select "Unblocked".

- Entering the correct PIN code for blocked channel or external input will temporarily deactivates the "Parental Lock" feature. To reactivate the "Parental Lock" settings, turn off and on the TV.

- If you lost your PIN code, refer to (Troubleshooting).

Set-up

Photo Frame Settings* Sets desired displays, image or music selection during "Photo Frame Mode".

USB Auto Start Automatically enters the thumbnail view of the last played Photo/Music/Video when the TV is turned on and a USB device is connected to the USB port then turned on.

Sleep Timer * Set the time in minutes that you would like the TV to remain on before shutting off automatically.

Clock/ Timers * Sets the timer to turn on/off the TV using "Sleep Timer", "On Timer", and "Clock Set"

* Available depending on the TV model.

Auto Start-up Starts the initial set-up procedure.

Language Selects the language in which the menus are displayed.

Start-up Logo Select "On" to display logo when the TV is turned on. Select "Off" to disable it.

AV Set-up Selects settings for connected equipment or input source.

- When the input source is set to "Skip" in the "Video Labels" under the "AV Set-up" menu, that input is greyed out in the list.

BRAVIA Sync Settings Allows the TV to communicate with equipment that is compatible with the BRAVIA Sync Control function, and connected to the HDMI jacks of the TV. Note that communication settings must also be made on the connected equipment.

- You cannot use "BRAVIA Sync Control" if the TV operations are linked to the operations of an audio system that is compatible with BRAVIA Sync Control.
- Some equipment with "BRAVIA Sync Control" does not support the "Device Control" feature.

Product Information Displays your TV's product information.

Factory Settings Resets all settings to factory settings. After completing this process, the initial set-up screen is displayed.

Eco

Reset Resets the current Eco settings to the default values.

Power Saving Reduces power consumption of the TV by adjusting the backlight.

Idle TV Standby Turns the TV off after it has been kept idle for the preset length of time.

Specifications

System
Panel system
LCD (Liquid Crystal Display) Panel

TV system
B/G, I, D/K, M

Colour/video system
PAL, PAL60, SECAM, NTSC4.43, NTSC3.58

Channel Coverage
Analogue: UHF/VHF/Cable, depending on your country/area selection.

Sound Output (Only for 19.5V supply)
8 W + 8 W (KLV-46/40R472A, KLV-46/40R452A, KLV-40R457A, KLV-32R422A, KLV-32R407A, KLV-32R402A)
5 W + 5 W (KLV-24R422A, KLV-24R402A)

Input/Output jacks
Antenna (aerial)/cable
75 ohm external terminal for VHF/UHF

COMPONENT IN/ AUDIO
YPBPR (Component Video): 1080p (50, 60Hz), 1080i (50, 60Hz), 720p (50, 60Hz), 576p, 576i, 480p, 480i
Audio input (phono jacks)

VIDEO IN
Video input (common phono pin with Y input)

HDMI IN 1, 2
Video: 1080p (24, 30, 50, 60Hz), 1080i (50, 60Hz), 720p (24, 30, 50, 60Hz), 576p, 576i, 480p, 480i, PC Formats
Audio: Two channel linear PCM: 32, 44.1 and 48kHz, 16, 20 and 24 bits, Dolby Digital
Analogue audio input (stereo minijack) (HDMI IN 1 only, common with PC IN)

MHL (common with HDMI IN or HDMI IN 2)
Video: 1080p (24, 30Hz), 1080i (50, 60Hz), 720p (24, 30, 50, 60Hz), 576p, 576i, 480p, 480i
Audio: Two channel linear PCM: 32, 44.1 and 48kHz, 16, 20 and 24 bits, Dolby Digital

AUDIO OUT/
Audio output (stereo minijack)
Headphones jack

HDMI AUDIO IN or HDMI 2 AUDIO IN
Audio input (stereo minijack) (common for HDMI IN or HDMI IN 2)

USB port

DC IN 12/19.5 V
AC adapter input: 19.5 V
DC input: 12 V (depends on country)

Others
Optional accessories
Wall-Mount Bracket: SU-WL400

Operating temperature
0 °C - 40 °C

Operating humidity
10 % - 80 % RH (non-condensing)

Power and others
Power requirements
110-240 V AC, 50/60 Hz

Screen size (measured diagonally) (Approx.)
KLV-46R472A, KLV-46R452A: 116.8 cm/46 inches
KLV-40R472A, KLV-40R452A: 101.6 cm/40 inches
KLV-32R422A, KLV-32R40xA: 80.0 cm/32 inches
KLV-24R422A, KLV-24R402A: 59.8 cm/24 inches

Display resolution
KLV-46R472A, KLV-46R452A, KLV-40R472A, KLV-40R45xA: 1,920 dots (horizontal) × 1,080 lines (vertical)
KLV-32R422A, KLV-32R40xA, KLV-24R422A, KLV-24R402A: 1,366 dots (horizontal) × 768 lines (vertical)

Power consumption
KLV-46R472A: 77 W, KLV-46R452A: 77 W
KLV-40R472A: 76 W, KLV-40R45xA: 76 W
KLV-32R422A: 52 W, KLV-32R40xA: 52 W
KLV-24R422A: 41 W, KLV-24R402A: 41 W

Dimensions (Approx.) (w x h x d)
with Table-Top Stand
KLV-46R472A: 1,054 × 649 × 204 mm
KLV-46R452A: 1,054 × 643 × 181 mm
KLV-40R472A: 924 × 573 × 184 mm
KLV-40R45xA: 924 × 568 × 181 mm
KLV-32R422A: 735 × 464 × 171 mm
KLV-32R40xA: 735 × 461 × 163 mm
KLV-24R422A: 558 × 366 × 153 mm
KLV-24R402A: 558 × 363 × 140 mm
without Table-Top Stand
KLV-46R472A, KLV-46R452A: 1,054 × 625 × 77 mm
KLV-40R472A, KLV-40R45xA: 924 × 551 × 77 mm
KLV-32R422A, KLV-32R40xA: 735 × 443 × 75 mm
KLV-24R422A, KLV-24R402A: 558 × 346 × 69 mm

Mass (Approx.)
with Table-Top Stand
KLV-46R472A: 9.1 kg, KLV-46R452A: 9.2 kg
KLV-40R472A: 7.0 kg, KLV-40R45xA: 7.1 kg
KLV-32R422A: 4.8 kg, KLV-32R40xA: 4.8 kg
KLV-24R422A: 4.6 kg, KLV-24R402A: 4.5 kg
without Table-Top Stand
KLV-46R472A, KLV-46R452A: 8.8 kg
KLV-40R472A, KLV-40R45xA: 6.7 kg
KLV-32R422A, KLV-32R40xA: 4.6 kg
KLV-24R422A, KLV-24R402A: 4.4 kg

- Design and specifications are subject to change without notice.

Installing the Accessories (Wall-Mount Bracket)

To Customers
Sufficient expertise is required for installing this product. Be sure to subcontract the installation to Sony dealers or licensed contractors and pay special attention to safety during the installation. Sony is not liable for any damages or injury caused by mishandling or improper installation, or installing any other than the specified product. Your Statutory Rights (if any) are not affected.

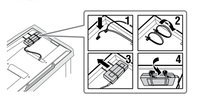
To Sony Dealers and Contractors
Sufficient expertise is required for installing this product. Be sure to read this instruction manual thoroughly to do the installation work safely. Sony is not liable for any damages or injury caused by mishandling or improper installation.

Precautions

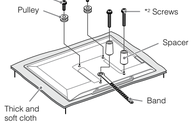
- Detach the Table-Top Stand from the TV. For details, refer to (Detaching the Table-Top Stand from the TV).
- When your TV is installed on the wall, make sure to use L shape connecting cable for HDMI AUDIO IN or HDMI 2 AUDIO IN terminal and AUDIO OUT terminal on the rear of the TV.

To bundle the AC adapter

- You can bundle the AC adapter as an optional step. Do not bundle it for any reason other than to wall-mount the TV.
- Make sure that the label is facing outwards when bundling AC adapter.



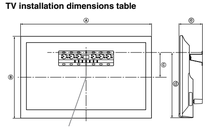
SU-WL400:
Your TV can be installed using the Wall-Mount Bracket SU-WL400 (sold separately)
- Refer to the Instructions supplied with the Wall-Mount Bracket to properly carry out the installation.



*1 KLV-46/40R472A, KLV-46/40R452A, KLV-40R457A, KLV-32R422A, KLV-32R407A, KLV-32R402A:
Use (+PSW 6 × 20) screws
*1 KLV-24R422A, KLV-24R402A:
Use (+PSW 4 × 20) screws

*2 KLV-46/40R472A, KLV-46/40R452A, KLV-40R457A, KLV-32R422A, KLV-32R407A, KLV-32R402A:
Use (+PSW 6 × 50) screws
*2 KLV-24R422A, KLV-24R402A:
Use (+PSW 4 × 50) screws

TV installation dimensions table



Unit: mm

KLV-	Ⓐ	Ⓑ	Ⓒ	Ⓓ	Ⓔ
46R472A/ 46R452A	1,054	625	-49	273	141
40R472A/ 40R457A/ 40R452A	924	551	-13	273	140
32R422A/ 32R407A/ 32R402A	735	443	42	273	138
24R422A/ 24R402A	558	346	88	268	117

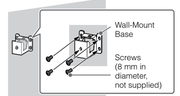
KLV-46/40R472A, KLV-32/24R422A:
Your TV's Table-Top Stand will be used as a part of the Wall-Mount Bracket.
- Refer to (Safety Information) and (Precautions) on WALL-MOUNT BRACKET before carrying out Wall-Mount Bracket Installation.

Checking the accessories

Wall-Mount Base (1)
Stand Protector (1)
Bracket Cap Plate (1)
Arm Bracket (2)
Assembling screws for Wall-Mount Bracket (+PSW 6 x12) (2)
(KLV-46/40R472A, SU-32R422A)
Assembling screws for Wall-Mount Bracket (+PSW 4 x10) (2)
(KLV-24R422A)
Spacer (2)
Fixing screw for Bracket Cap Plate (+PSW 4 x 10) (1)
(KLV-46/40R472A, KLV-32/24R422A)

- The screws needed to secure the Wall-Mount Base to the wall are not supplied.

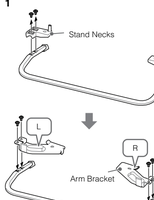
Installing the Brackets on the wall



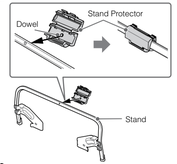
Preparing for the installation of the TV

- Once the Stand Necks are detached from the Stand, be sure to keep the Stand Necks and screws in a safe place.

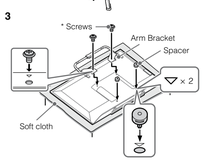
1



2



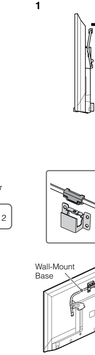
3



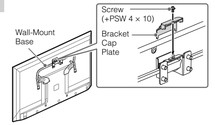
* KLV-46/40R472A, KLV-32R422A:
Use (+PSW 6 × 12) screws
* KLV-24R422A:
Use (+PSW 4 × 10) screws

Installing the TV on the wall

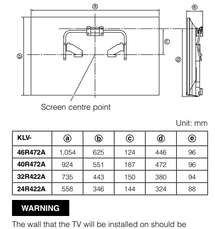
1



2



TV installation dimensions table



Unit: mm

KLV-	Ⓐ	Ⓑ	Ⓒ	Ⓓ	Ⓔ
46R472A	1,054	625	124	446	96
40R472A	924	551	187	472	96
32R422A	735	443	150	380	94
24R422A	558	346	144	324	88

WARNING

The wall that the TV will be installed on should be capable of supporting a weight of at least four times that of the TV. Refer to (Specifications) for its weight.

- Make sure to connect and bundle the cables before installing the TV on the wall.

Troubleshooting

When the (standby) indicator is flashing, count how many times it flashes (interval time is three seconds).
Press +/− or (Mute).
Press on the TV to turn it off, disconnect the AC power cord (mains lead), and inform your dealer or Sony service centre of how the indicator flashes (number of flashes).

When it is not flashing
Check the items listed below. If the problem still persists, have your TV serviced by qualified service personnel.

Picture

No picture and no sound
- Check the antenna/cable connection.
- Connect the TV to the AC power outlet (mains socket), and press on the TV. If the (standby) indicator lights up in red, press .

No picture from the connected equipment
- Turn the connected equipment on.
- Check the connection between the optional equipment and the TV.
- Press repeatedly to select the desired input.
- Correctly insert the USB / MHL device.
- For USB device: Make sure that the USB device has been properly formatted.
- For MHL device: Ensure that the MHL device is connected to the HDMI / MHL or HDMI IN 2 / MHL jack (depending on your TV model) using an MHL cable.
- Operations are not guaranteed for all USB / MHL devices. Also, operations differ depending on the features of the USB / MHL device.

Double images or ghosting
- Check the antenna/cable connection, location or direction.

Only snow and noise appear on the screen
- Check if the antenna has been broken or bent.
- Check if the antenna has reached the end of its serviceable life (three to five years in normal use, one to two years at the seaside).

Distorted picture (dotted lines or stripes)
- Keep the TV away from electrical noise sources such as cars, motorcycles, hair-dryers or optional equipment.
- When installing optional equipment, leave some space between the optional equipment and the TV.
- Check the antenna/cable connection.
- Keep the antenna/cable away from other connecting cables.

Picture or sound noise when viewing a TV channel
- Adjust "AFT" (Automatic Fine Tuning) to obtain better picture reception.

Tiny black points and/or bright points appear on the screen
- The screen is composed of pixels. This is not a malfunction.

Picture contours are distorted
- Change the current setting of "Cinema Drive" to other settings.

No colour on programmes
- Select "Reset".

Sound

No sound, but good picture
- Press +/− or (Mute).
- Check if the "Speakers" is set to "TV Speakers".

No sound or noisy sound
- Check if the TV system setting is appropriate.

Channels

Some channels are blank
- The channel is for scrambled/subscription service only. Subscribe to a pay TV service.
- Channel is used only for data (no picture or sound).
- Contact the broadcaster for transmission details.

General

The TV turns off automatically (the TV enters standby mode)
- Check if the "Sleep Timer" is activated.
- Check if the "Idle TV Standby" is activated.

Some input sources cannot be selected
- Select "Video Labels" and cancel "Skip" of the input source.

The remote does not function
- Replace the batteries.

"HDMI equipment does not appear on "BRAVIA Sync Device List"
- Check that your equipment is compatible with BRAVIA Sync Control.

Cannot select "Off" in "BRAVIA Sync Control"
- If you have connected any audio system that is compatible with BRAVIA Sync Control, you cannot select "Off" in this menu. To change the audio output to the TV speaker, select "TV Speakers" in the "Speakers" menu.

The "Parental Lock" password has been forgotten
- Press **HOME** and select "Settings" → "Parental Lock" → "PIN code" then enter 9999 for the PIN code (PIN code 9999 is always accepted.).

TV does not output picture and/or sound from the MHL device
- Disconnect the MHL cable, then reconnect it, or power the MHL device off then on again and release its lock.

Store Display Mode or Promoting Feature Logo appears on the screen
- On the remote control, press **RETURN** then press **HOME** and select "Settings" → "Set-up" → "Auto Start-up". Be sure to select "Home" in "Location".

Safety information

WARNING
Batteries must not be exposed to excessive heat such as sunshine, fire or the like.

Installation/Set-up
Install and use the TV set in accordance with the instructions below in order to avoid any risk of fire, electrical shock or damage and/or injuries.

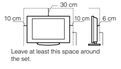
Installation
- The TV set should be installed near an easily accessible AC power outlet (mains socket).
- Place the TV set on a stable, level surface to avoid it from falling down and cause personal injury or damage to the TV.
- Only qualified service personnel should carry out wall installations.
- For safety reasons, it is strongly recommended that you use Sony accessories, including
  – Wall-Mount Bracket SU-WL400
  – Be sure to use the screws supplied with the Wall-mount bracket when attaching the mounting hooks to the TV set. The supplied screws are designed as indicated by illustration when measured from the attaching surface of the mounting hook. The diameter and length of the screws differ depending on the Wall-mount bracket model.
  Use of screws other than those supplied may result in internal damage to the TV set or cause it to fall, etc.
  24" TV: 6.5 mm – 10 mm
  32" / 40" / 46" TV: 8 mm – 12 mm
  or

Transporting
- Before transporting the TV set, disconnect all cables.
- Two or more people are needed to transport a large TV set.
- When transporting the TV set by hand, hold it as shown in the illustration. Do not put stress on the LCD panel and the frame around the screen.
- When transporting the TV set, do not subject it to jolts or excessive vibration.
- When transporting the TV set for repairs or when moving, pack it using the original carton and packing material.

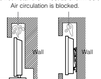
Ventilation
- Never cover the ventilation holes or insert anything in the cabinet.
- Leave space around the TV set as shown below.
- It is strongly recommended that you use a Sony wall-mount bracket in order to provide adequate air-circulation.

Installed on the wall

Installed with stand



- To ensure proper ventilation and prevent the collection of dirt or dust:
  – Do not lay the TV set flat, install upside down, backwards, or sideways.
  – Do not place the TV set on a shelf, rug, bed or in a closet.
  – Do not cover the TV set with a cloth, such as curtains, or items such as newspapers, etc.
  – Do not install the TV set as shown below.
  Air circulation is blocked.



AC power cord (mains lead)
Handle the AC power cord (mains lead) and outlet (mains socket) as follows in order to avoid any risk of fire, electrical shock or damage and/or injuries:
- The shape of AC power plug, which is supplied with the TV set, varies depending on the regions. Be sure to connect the appropriate supplied AC power cord (mains lead) with the plug that fits into the AC power outlet (mains socket).
- Use only Sony supplied AC power cords (mains lead), not those of other brands.
- Insert the plug fully into the AC power outlet (mains socket).
- Operate the TV set on a 110–240 V AC supply only.
- When wiring cables, be sure to unplug the AC power cord (mains lead) for your safety and take care not to catch your feet on the cables.
- Disconnect the AC power cord (mains lead) from the AC power outlet (mains socket) before working on or moving the TV set.
- Keep the AC power cord (mains lead) away from heat sources.
- Unplug the AC power plug (mains plug) and clean it regularly. If the plug is covered with dust and picks up moisture, its insulation may deteriorate, which could result in a fire.

Notes
- Do not use the supplied AC power cord (mains lead) on any other equipment.
- Do not pinch, bend, or twist the AC power cord (mains lead) excessively. The core conductors may be exposed or broken.
- Do not modify the AC power cord (mains lead).
- Do not put anything heavy on the AC power cord (mains lead).
- Do not pull on the AC power cord (mains lead) itself when disconnecting the AC power cord (mains lead).
- Do not connect too many appliances to the same AC power outlet (mains socket).
- Do not use a poor fitting AC power outlet (mains socket).

NOTE ON AC ADAPTER
Warning
To reduce the risk of fire or electric shock, do not expose this apparatus to rain or moisture.
To prevent fire or shock hazard, do not place objects filled with liquids, such as vases, on the apparatus.
Do not install this equipment in a confined space, such as a bookshelf or similar unit.
- Please ensure that the AC power outlet (mains socket) is installed near the equipment and shall be easily accessible.
- Be sure to use the supplied AC adapter and AC power cords (mains lead). Otherwise it may cause a malfunction.
- Connect the AC adapter to an easily accessible AC power outlet (mains socket).
- Do not coil the AC power cord (mains lead) around the AC adapter. The core wire may be cut, and/or it may cause a malfunction of the TV.
- Do not touch the AC adapter with wet hands.
- If you notice an abnormality in the AC adapter, disconnect it from the AC power outlet (mains socket) immediately.
- The set is not disconnected from the AC source as long as it is connected to the AC power outlet (mains socket), even if the set itself has been turned off.
- As the AC adapter will become warm when it is used for a long time, you may feel hot when touching it by hand.

Prohibited Usage
Do not install/use the TV set in locations, environments or situations such as those listed below, or the TV set may malfunction and cause a fire, electrical shock, damage and/or injuries.

Location:
- Outdoors (in direct sunlight), at the seashore, on a ship or other vessel, inside a vehicle, in medical institutions, unstable locations, near water, rain, moisture or smoke.
- If the TV is placed in the changing room of a public bath or hot spring, the TV may be damaged by airborne sulfur, etc.
- For best picture quality, do not expose the screen to direct illumination or sunlight.
- Avoid moving the TV from a cold area to a warm area. Sudden room temperature changes may cause moisture condensation. This may cause the TV to show poor picture and/or poor colour. Should this occur, allow moisture to evaporate completely before powering the TV on.
- Never spray water or detergent directly on the TV set. It may drip to the bottom of the screen or exterior parts and enter the TV set, and may cause damage to the TV set.

Environment:
- Places that are hot, humid, or excessively dusty; where insects may enter; where it might be exposed to mechanical vibration, near flammable objects (candles, etc). The TV set shall not be exposed to dripping or splashing and no objects filled with liquids, such as vases, shall be placed on the TV.
- Do not place the TV in a humid or dusty space, or in a room with oily smoke or steam (near cooking tables or humidifiers). Fire, electric shock, or warping may result.
- Do not install the TV in places subject to extreme temperature such as in direct sunlight, near a radiator or a heating vent. The TV may overheat in such condition which can cause deformation of the enclosure and/or TV malfunction.

Situation:
- Do not use when your hands are wet, with the cabinet removed, or with attachments not recommended by the manufacturer. Disconnect the TV set from AC power outlet (mains socket) and antenna during lightning storms.
- Do not install the TV so that it sticks out into an open space. Injury or damage from a person or object bumping into the TV may result.

Broken pieces:
- Do not throw anything at the TV set. The screen glass may break by the impact and cause serious injury.
- If the surface of the TV set cracks, do not touch it until you have unplugged the AC power cord (mains lead). Otherwise electric shock may result.

When not in use
- If you will not be using the TV set for several days, the TV set should be disconnected from the AC power (mains) for environmental and safety reasons.
- As the TV set is not disconnected from the AC power (mains) when the TV set is just turned off, pull the plug from the AC power outlet (mains socket) to disconnect the TV set completely.
  However, some TV sets may have features that require the TV set to be left in standby to work correctly.

For children
- Do not allow children to climb on the TV set.
- Keep small accessories out of the reach of children, so that they are not mistakenly swallowed.

If the following problems occur...
Turn off the TV set and unplug the AC power cord (mains lead) immediately if any of the following problems occur.
Ask your dealer or Sony service centre to have it checked by qualified service personnel.

When:
– AC power cord (mains lead) is damaged.
– Poor fitting of AC power outlet (mains socket).
– TV set is damaged by being dropped, hit or having something thrown at it.
– Any liquid or solid object falls through openings in the cabinet.

About LCD Monitor Temperature
When the LCD Monitor is used for an extended period, the panel surrounds become warm. You may feel hot when touching there by the hand.

WALL-MOUNT BRACKET
Below information shows the correct handling of the Wall-Mount Bracket. Be sure to read this information thoroughly and use the Wall-Mount Bracket correctly.

To Customers:
Be sure to observe the following precautions for safety to prevent a serious injury through fire, electric shock, the product toppling over, or the product dropping.
- Be sure to subcontract the installation to licensed contractors and keep small children away during installation.
- Be sure to subcontract moving or dismounting of the TV to licensed contractors.
- Do not remove screws, etc., after mounting the TV.
- Do not make alterations to the parts of the Wall-Mount Bracket.
- Do not mount any equipment other than the specified product.
- Do not apply any load other than the TV on the Wall-Mount Bracket.
- Do not lean on or hang from the TV.
- Do not handle the TV with excessive force during cleaning or maintenance.

To Sony Dealers and Contractors:
The following instructions are for Sony dealers and contractors only. Be sure to read safety precautions described below and pay special attention to safety during the installation, maintenance and checking of this product.
- Do not install the Wall-Mount Bracket on wall surfaces where the corners or the sides of the TV are protruding away from the wall surface.
- Do not install the TV over or under an air-conditioner.
- Be sure to install the Wall-Mount Bracket securely to the wall following the instructions in this instruction manual. If any of the screws are loose or fall out, the Wall-Mount Bracket may fall and cause injury or property damage.
- Be sure to use the supplied screws and attachment parts properly following the instructions given in this instruction manual. If you use substitute items, the TV may fall and cause bodily injury to someone or damage to the TV.
- Be sure to assemble the bracket properly following the instructed procedure explained in this instruction manual.
- Be sure to tighten the screws securely in the designated position.
- Be careful not to subject the TV to shock during installation.
- Be sure to install the TV on a wall that is both perpendicular and flat.
- After proper installation of the TV, secure the cables properly.
- Do not allow the AC power cord (mains lead) or the connecting cable to be pinched as the internal conductors may become exposed and cause a short circuit or an electrical break.

Precautions

Viewing the TV
- View the TV in moderate light, as viewing the TV in poor light or during long period of time, strains your eyes.
- When using headphones, adjust the volume so as to avoid excessive levels, as hearing damage may result.

LCD Screen
- Although the LCD screen is made with high-precision technology and 99.99% or more of the pixels are effective, black dots may appear or bright points of light (red, blue, or green) may appear constantly on the LCD screen. This is a structural property of the LCD screen and is not a malfunction.
- Do not push or scratch the front filter, or place objects on top of this TV set. The image may be uneven or the LCD screen may be damaged.
- If this TV set is used in a cold place, a smear may occur in the picture or the picture may become dark. This does not indicate a failure. These phenomena disappear as the temperature rises.
- Ghosting may occur when still pictures are displayed continuously. It may disappear after a few moments.
- The screen and cabinet get warm when this TV set is in use. This is not a malfunction.
- The LCD screen contains a small amount of liquid crystal. Follow your local ordinances and regulations for disposal.

Handling and cleaning the screen surface/ cabinet of the TV set
Be sure to unplug the AC power cord (mains lead) connected to the TV set from AC power outlet (mains socket) before cleaning.
- To remove dust from the screen surface/cabinet, wipe gently with a soft cloth. If dust is persistent, wipe with a soft cloth slightly moistened with a diluted mild detergent solution.
- Never spray water or detergent directly on the TV set. It may drip to the bottom of the screen or exterior parts and enter the TV set, and may cause damage to the TV set.
- Never use any type of abrasive pad, alkaline/ acid cleaner, scouring powder, or volatile solvent, such as alcohol, benzene, thinner or insecticide. Using such materials or maintaining prolonged contact with rubber or vinyl materials may result in damage to the screen surface and cabinet material.
- Periodic vacuuming of the ventilation openings is recommended to ensure to proper ventilation.
- When adjusting the angle of the TV set, move it slowly so as to prevent the TV set from moving or slipping off from its table stand.

Optional Equipment
Keep optional components or any equipment emitting electromagnetic radiation away from the TV set. Otherwise picture distortion and/or noisy sound may occur.

(Caution about handling the remote control)
Notes
- Observe the correct polarity when inserting batteries.
- Do not use different types of batteries together or mix old and new batteries.
- Dispose of batteries in an environmentally friendly way. Certain regions may regulate the disposal of batteries. Please consult your local authority.
- Handle the remote with care. Do not drop or step on it, or spill liquid of any kind onto it.
- Do not place the remote in a location near a heat source, a place subject to direct sunlight, or a damp room.

WALL-MOUNT BRACKET
- If you use the TV installed on the Wall-Mount Bracket for a long time, the wall behind or above the TV may become discoloured or the wallpaper may come unstuck, depending on the material of the wall.
- If the Wall-Mount Bracket is removed after installing it on the wall, the screw holes are left.
- Do not use the Wall-Mount Bracket in a place where it is subjected to mechanical vibrations.